UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

WARREN HAVENS; SKYBRIDGE SPECTRUM FOUNDATION; TELESAURUS VPC, LLC; AMTS CONSORTIUM, LLC; INTELLIGENT TRANSPORTATION & MONITORING, LLC; TELESAURUS GB, LLC, Plaintiffs, v. MOBEX NETWORK SERVICES, LLC; MOBEX COMMUNICATIONS, INC.; PAGING SYSTEMS, INC.; TOUCH TEL CORPORATION; MARITIME COMMUNICATIONS/LAND MOBILE, LLC, Defendants.	Civil Action No.: 11-993 (KSH)(CLW) ***DOCUMENT ELECTRONICALLY FILED***

PLAINTIFFS' POST-TRIAL FINDINGS OF FACT

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A bench trial was held in this matter before the Honorable Katharine S. Hayden between May 20, 2014 and June 10, 2014. Plaintiffs submit these Proposed Findings of Fact and Conclusions of Law demonstrating that Defendant violated Section 1 of the Sherman Act.

PROPOSED FINDINGS OF FACT

I. OVERVIEW

Plaintiffs consist of four LLCs, their principal owner, and a I.R.C § 501(c)(3) nonprofit. Four of the five entities own geographic licenses in the AMTS radio service that together are nationwide in scope. That AMTS radio service covers 2 megahertz ("MHz") of spectrum broken into two 1 MHz blocks (A and B Blocks) (each with 1/2+1/2 MHz sub-parts) in a frequency range ideally suited for radio transmission systems that can support, among other things, accident avoidance systems for passenger car/truck use and rail use over vast areas.

Defendants operated in concert to acquire and illicitly hold site-based licenses, for all AMTS spectrum in most of the major US markets and transport corridors, under the old site-based FCC licensing regime. In this regime, site-based license applicants were granted AMTS spectrum which Defendants divided between themselves, Block A versus Block B. When the FCC adopted a geographic licensing scheme in the early 2000s, Defendants continued the same concerted divided holdings of illicit Block A and Block B licenses, respectively, in order to discourage new entrants from bidding for geographic licenses and to impede other successful bidders from actually commencing operations, especially in these major markets and transport corridors nationwide where Defendants held site-based licenses.

Defendants' concerted, and illicit, anti-competitive actions included falsely and repeatedly stating to the FCC and competitors, in many filings over decades, that they satisfied FCC rule requirements to construct, meet service coverage and operational standards, and

provide Commercial Mobile Radio Service ("CMRS") under their site-based licenses, when they did not meet those requirements, and then hiding that evidence of the failures and fraud, and even falsely renewing licenses that they know had expired by action of law due to those failures. The violations must be found as intentional, and Defendants' factual defense assertions in this case as lacking credibility, given that Defendants were at all times owned, managed and guided by, and only by, experienced wireless telecom attorneys and leaders, at all times, for the decades at issue. This resulted in years of unlawful "warehousing" of radio spectrum contrary to core Congressional and FCC policy for regulation of the nation's limited spectrum resources, especially below the military band 225-400 MHz.

Defendants also engaged in concerted anti-competitive refusals to cooperate with Plaintiffs as the geographic licensees by failing to follow the simple requirement of FCC rule §80.385(b) and related orders directing them to share information they would immediately have on hand if they had valid licensed stations, designed to prevent radio signal interference, and that was a precondition under to the geographic licensee's ability to plan, construct and operate its transmission stations in these major markets and transport routes that were within 120 km of the Defendants' alleged-valid stations. They did so to keep Plaintiffs from commencing build-out and operation under their geographic licenses.

This conspiracy had its origin in an oral agreement entered approximately two decades ago by Robert Cooper of PSI and Fred Daniel of Regionet, where Regionet would get AMTS Block A and PSI would get Block B. The conspiracy was further evidenced by multiple major actions over years that were inconsistent with each Defendant's own independent economic self-interest absent participation in the conspiracy. This conspiracy constituted a *per se* unlawful horizontal market allocation.

Defendants intended to unlawfully block competition, first in site-based licensing, then in the geographic AMTS license auctions, and thereafter to impede Plaintiffs' use of their acquired geographic license rights. Meanwhile Defendants, having made little investment to obtain and fraudulently maintain sham site-based licenses, planned to wait until Plaintiffs were forced to sell or relinquish their licenses, or until Plaintiffs would pay off Defendants to give up their blocking.

This devious, manipulative, and anti-competitive scheme inflicted serious financial injury on Plaintiffs and the relevant product and geographic markets. These markets offer wide-area, long-range radio systems for major transportation, energy and other such industries needing wireless for safety and efficiency, for which AMTS is the best and sometimes only solution.

One of the two main Defendants, PSI, settled before trial, surrendering or allowing to expire most of its site-based licenses. These licenses reverted under 47 C.F.R. § 80.385(c) to the Plaintiff holding the corresponding geographic license. In light of its egregious anti-competitive conduct, the remaining Defendant is properly subject to license cancellations to achieve the same purpose, as this Court is empowered to declare under 47 U.S.C. § 313.

II. PARTIES TO THE ACTION

The parties to this action when initially filed were as follows:

1. Plaintiff Warren C. Havens is an individual and is a senior officer of each of the for-profit Plaintiff entities. (T2 6:6-9 **[Havens]**) (Trial transcript references are denominated by day (*e.g.* T2, meaning trial day 2) followed by the page and line reference (*e.g.*, 6:6-9, meaning page 6, lines 6 through 9) and followed by the testifying witness bracketed in bold (*e.g.* **[Havens]** meaning Plaintiff Warren C. Havens). Deposition designation references are noted by witness name followed by "Depo." and page and line references as above. Admitted trial exhibit references are by Plaintiffs' and Defendants' exhibit numbers (*e.g.*, P102, meaning Plaintiffs'

Trial Exhibit 102)). Moreover, at the conclusion of the trial (T9 103:13-104:4) certain exhibits were offered into evidence by Plaintiffs with the understanding that if they were used in stipulated deposition designations admitted into evidence or referred at trial during the examination of a witness, they would be received in evidence; we understand that with such exhibits Defendant had no objection to this procedure. Those exhibits so used and cited herein are P274, P275, P278 and P374, and it is requested that it therefore be so received in evidence.

2. Plaintiff Skybridge Spectrum Foundation is a Delaware nonprofit corporation under I.R.C. §501(c)(3) founded by Plaintiff Warren Havens (T2 10:7-18 **[Havens]**), which owns licenses to certain AMTS spectrum by virtue of irrevocable charitable donations made by certain of Plaintiffs. (T2 11:22-12:10 **[Havens]**).

3. Plaintiff Telesaurus VPC, LLC is a Delaware limited liability company founded by Plaintiff Warren Havens (T2 25:9-22 **[Havens]**), which acquired AMTS licenses in a FCC public auction (T3 7:11-12 **[Havens]**). It has changed its name and is currently known as Verde Systems, LLC. (T4 74:16-21 **[Havens]**).

4. Plaintiff AMTS Consortium, LLC is a Delaware limited liability company founded by Plaintiff Warren Havens (T2 25:9-22 **[Havens]**), which acquired AMTS licenses in a FCC public auction (T3 7:24-8:6 **[Havens]**). It has changed its name and is currently known as Enviromentel LLC. (T4 98:21-23 **[Havens]**).

5. Plaintiff Intelligent Transportation and Monitoring Wireless, LLC is a Delaware limited liability company founded by Plaintiff Warren Havens (T2 25:9-22 **[Havens]**), that acquired AMTS licenses in a FCC public action (T3 8:8-13**[Havens]**).

6. Plaintiff Telesaurus Holdings GB, LLC is a Delaware limited liability company founded by Plaintiff Warren Havens (T2 25:9-22 and T4 123:4-9 **[Havens]**). Telesaurus

Holdings GB, LLC does not own any AMTS licenses but has business relations with the other plaintiff LLCs in relation to their AMTS licenses. (T3 9:1-4 **[Havens]**).

7. Defendant Paging Systems, Inc. is a California corporation allegedly solely owned by Susan Cooper, wife of Robert Cooper (who is the owner and President of defendant Touch Tel Corporation). (Cooper Depo., 14:21-15:6).

8. Defendant Touch Tel Corporation ("Touch Tel") is a California corporation allegedly solely owned by Robert Cooper which shares office space with Defendant Paging Systems, Inc. in Burlingame, California. (Cooper Depo., 24:4 – 25:15). Defendants Paging Systems, Inc. and Touch Tel (referred to collectively herein as "PSI"), have been dismissed from this action pursuant to a settlement agreement that was the subject of the Court's "Order Granting Paging Systems Defendants' Motion to Enforce Settlement Agreement" dated May 14, 2014. (*See* ECF No. 251).

9. Defendant Mobex Network Services, LLC, was a Delaware limited liability company (Ex. D3) that allegedly has been dissolved (T9 49:15-19 **[Reardon]**), and was the predecessor in interest of Defendant Maritime Communications/Land Mobile, LLC in the AMTS site-based licenses and associated site equipment assigned to MCLM. (Ex. P104; T5 91:5-20, 99:16-100:6 **[D. DePriest]**). In around 2000 or 2001, Mobex Network Services, LLC acquired site-based license holders Regionet Wireless License, LLC ("Regionet") and Waterway Communications System LLC (known as "Watercom"). (T7 7:19-8:20 **[Reardon]**; T8 17:23-18:7 **[Reardon]**). On February 19, 2013, the Court granted Plaintiffs' motion to strike the Answer filed by Mobex Network Services, LLC and for entry of its default (s*ee* ECF No. 152, Order Granting Plaintiff's Motion to Strike, etc. dated February 19, 2013), and the Clerk of the Court thereafter entered the default of Mobex Network Services, LLC.

10. Defendant Mobex Communications, Inc., was a Delaware corporation (Ex. D4) that allegedly has been dissolved (T9 49:10-14 **[Reardon]**), and was 85% owner of Mobex Network Services, LLC (T7 7:10-18) **[Reardon]**). On February 19, 2013, the Court granted Plaintiffs' motion to strike the Answer filed by Mobex Communications, Inc. and for entry of its default. (*see* ECF No. 152, Order Granting Plaintiff's Motion to Strike, etc. dated February 19, 2013), and the Clerk of the Court thereafter entered the default of Mobex Communications, Inc. Herein below, "Mobex" means either or both of the two above Mobex-named entities.

11. Maritime Communications/Land Mobile, LLC ("MCLM") is a Delaware limited liability company (Ex. D2) that acquired certain site-based AMTS licenses from Mobex Network Systems, LLC in 2005 for $6 million via an asset purchase agreement (Ex. P104 and Schedule A thereto), and acquired four geographic AMTS licenses in the second of two public auction, also in 2005 (Ex. D100). On or about August 1, 2011, MCLM filed a petition for bankruptcy in the U.S. Bankruptcy Court for the Northern District of Mississippi. (T5 75:12-14 **[Havens]**; T9 32:5-8 **[Reardon]**). MCLM is appearing herein as a debtor-in-possession. (T7 5:8-25) **[Reardon]**). Defendant MCLM alleges to transact business in the State of New Jersey as, for example, with the New Jersey Turnpike Authority. (T7 99:20-23 **[Reardon]**).

12. Defendants PSI and Touch Tel settled before trial and did not appear at the trial. Before the trial, the two Mobex Defendants were subject to an order finding them in default and striking their Answers, as noted above (*see* ECF No. 152), and had a motion for default judgment pending against them (*see* ECF No. 202).

III. FCC REGULATION OF AMTS SPECTRUM

13. Plaintiffs allege that PSI, on the one hand, and a succession of companies beginning with an individual named Fred Daniel d/b/a Orion and continuing through successors

Regionet (owned by Daniel), Mobex, and MCLM on the other hand, have been involved together in an unlawful conspiracy to dominate and consolidate AMTS spectrum and, in violation of many FCC rules and Orders, to block other entrants, and specifically Plaintiffs, from (a) acquiring site-based and geographic licenses from the FCC for such spectrum, and (b) from subsequently employing the geographic licenses they did obtain, both generally and specifically, especially in certain new technology-related service and product markets. (T4 77:2-79:16 **[Havens]**).

A. The AMTS Spectrum

14. The FCC created the Automated Maritime Telecommunications Systems ("AMTS") radio service in 1981 to provide public two-way radio communications to tugs, barges and other commercial vessels with overlapping "continuity of coverage" radio service along long shipping routes on the same spectrum and radio channels, so that a ship passing from the range of one fixed-site radio base station (a "station" or "site" or "cell") to another in the AMTS system would not drop the connection or have to manually change channels on its radio. (T2 35:1-16, 69:23-70:14 **[Havens]**; T4 26:19-27:9 **[Havens]**). *Automated Inland Waterways Communications Systems*, 84 F.C.C.2d 875 (1981).

15. The AMTS spectrum bands are 217 to 218 MHz and 219 to 220 MHz. (*See* 47 C.F.R. Sec. 2.106, the FCC's table of frequency allocations.) They are bands largely without spectrum broken up by other pre-existing uses. By contrast, the spectrum below 216 MHz is reserved principally for television broadcasting, and 216-217 MHz is used for very short range transmissions for such things as auditorium amplification, garage-door openers, and hearing aids. (T3 9:20-10:23 **[Havens]**).

16. The spectrum in 218 to 219 MHz is in part not yet licensed and in part licensed and used, and has low power limitation, and 220 to 222 MHz is broken up into very small band-width uses (5 KHz bandwidth segments) and small geographic areas (into over 100 regions), and US freight railroads hold and use for themselves the parts that are consolidated into larger segments and thus reasonably viable. (T3 14:23-17:6, 17:7-19:4 **[Havens]**). Hence, they are unavailable especially for highway, and public passenger railroad, accident-avoidance safety-related uses, and transport efficiency uses, which require largeer band width and geographic areas. (Id.) (Some in the telecommunications industry use "220 MHz" or "220 MHz service" as a term of art to include the range of spectrum between 217 to 222 MHz, which includes AMTS. (T5 69:5-17 **[Havens]**).)

17. Above 222 up to 225 MHz, amateur or "ham" radio operations have sole use of the spectrum, and the spectrum above 225 MHz all the way up to 400 MHz is devoted exclusively to military uses. (T3 19:15-20:17 **[Havens]**).

18. In spectrum ranges above 400 MHz, the spectrum is also largely licensed and in use, including by other TV stations, and in addition various characteristics make this spectrum impractical for these accident-avoidance safety functions for which the AMTS spectrum is ideally suited. The issues include the need to much more closely space the radio-transmission antenna towers, or sites, verses AMTS (increasing costs), and the need for higher power usage for transmissions. In bands below 100 MHz, it is difficult to control the distance of the radio transmission and service, and little spectrum is available. (T3 20:17-22:10 **[Havens];** T1 121:24-122:15 **[Lindsey]**).

1. "Block A" and "Block B" AMTS Licenses

19. The AMTS band is are divided into "Block A" and "Block B" frequencies or spectrum. Block B is 217 - 217.5, paired with 219 - 219.5 MHz, and Block A is 217.5 - 218 paired with 219.5 - 220 MHz. (T2 35:1-36:11, 38:2-17 **[Havens]**; *see* 47 C.F.R. §80.385(a)(2)). "Block A" and "Block B" frequencies apply to both "site-based" and "geographic" AMTS licenses (discussed below). Originally, there was a presumptive bar preventing a single licensee from owning both Block A and Block B licenses absent a showing to the FCC of sufficient need, after getting one block and using it, for the second block. However, the FCC changed this policy to permit a single licensee to obtain both AMTS Blocks. *See Amendment of the Commission's Rules Concerning Maritime Communications*, 15 F.C.C.R. 22,585, 22,607 (2000); *Waterway Communications Sys., Inc.*, FCC 86-230, 1986 WL 291624 (May 8, 1986); *Riverphone, Inc.*, 2 F.C.C.R. 239, 239 (1987); *Mobex Network Servs.*, LLC, 25 F.C.C.R. 554, 555 (2010).

2. Site-Based Licenses

20. Prior to November 16, 2000, the FCC granted AMTS licenses through a "site-based" system, in which applicants represented to the FCC that they would meet certain service requirements for specified navigable waterways and U.S. coastal regions. (*See Amendment of the Commission's Rules Concerning Maritime Communications*, 17 F.C.C.R. 6685, 6686 (2002), also known as "*The Fifth Report and Order*" (announcing adaptation of geographic approach for AMTS licensing)). If the FCC approved the site-based application, the applicant would be given the license free of charge but would have to begin providing service exactly as represented in the application within two years from the grant of the license as a condition of keeping the license. (47 C.F.R. Sec. 80.49(a)(3); T3 54:8-21 **[Havens]**).

21. No site-based licenses have been issued since November 16, 2000. (*See The Fifth Report and Order*, 17 F.C.C.R. 6685, 6690 n. 38 and accompanying text (noting that, on November 16, 2000, *The Fourth Report and Order and Third Further Notice of Proposed Rulemaking* suspended acceptance of applications for new AMTS licenses)).

(a) Automatic Termination of Site-Based Licenses

22. As with other wireless licenses, such site-based AMTS licenses and their component stations would terminate automatically, without specific Commission action, upon their expiration date, or if certain rule requirements were not met as to construction and commencement of service. *See* 47 C.F.R. §§1.946(c), 1.955(a) and 80.49(a)(3). Section 1.955(a) provides, in pertinent part:

> (a) Authorizations in general remain valid until terminated in accordance with this section, except that the Commission may revoke an authorization pursuant to section 312 of the Communications Act of 1934, as amended. See 47 U.S.C. 312.
>
> (1) Expiration. ***Authorizations automatically terminate, without specific Commission action, on the expiration date specified therein, unless a timely application for renewal is filed***. See §1.949 of this part. No authorization granted under the provisions of this part shall be for a term longer than ten years, except to the extent a longer term is authorized under §27.13 of part 27 of this chapter.
>
> (2) Failure to meet construction or coverage requirements. ***Authorizations automatically terminate (in whole or in part as set forth in the service rules), without specific Commission action, if the licensee fails to meet applicable construction or coverage requirements.*** See §1.946(c).
>
> (3) Service discontinued. ***Authorizations automatically terminate, without specific Commission action, if service is permanently discontinued.*** The Commission authorization or the individual service rules govern the definition of permanent discontinuance for purposes of this section. A licensee who discontinues operations shall notify the Commission of the discontinuance of operations by

> submitting FCC Form 601 or 605 requesting license cancellation. [Emphasis supplied]

23. Naturally, if a license was automatically terminated, that meant it was no longer legally valid, even if the licensee failed to return the license to the FCC for cancellation or even if the licensee sold the license or continued to make representations to the effect that the license was valid. Moreover, when the FCC adopted a geographic-based licensing system, it determined that any site-based license, upon termination, would automatically "revert" to the geographic licensee of the region. *See* 47 C.F.R. §80.385(c). The FCC explicitly adopted this principle of automatic reversion in recognition that public policy favors consolidation of spectrum in geographic licenses. (*See The Fifth Report and Order*, 17 F.C.C.R. 6685, 6704 ¶40 (2002); 47 C.F.R. §80.385(c))

(b) Construction Requirements for Site-Based Licenses

24. FCC Rules pertaining to site-based licenses require that when a site-based AMTS license was issued, the required component stations had to be constructed, according to the specified parameters of the license, within two years of the grant of the license (the "Construction Period"), unless that period was extended by the FCC upon approval by it of an extension request submitted by the licensee before its original completion deadline and then only until the new FCC-established deadline. Failure to meet this construction requirement resulted in automatic termination of the license, as discussed above. (*See* 47 C.F.R. §80.49(a) and 47 C.F.R. §§ 1.946, 1.955(a); P378 and P380, 1st par., last two sentences re: construction requirements).

(c) Coverage Requirements for Site Based Licenses

25. In addition to timely fulfillment of construction requirements, FCC Rules impose certain "coverage" requirements upon site-based AMTS licensees, which, among other things, obligate these licensees to construct two or more stations with overlapping radio-service

coverage under a certain technical standard (also called "continuity of coverage" or "continuity of service coverage"). (T4 27:1-15 **[Havens]**). At the times relevant to this litigation, the then-existing version of 47 C.F.R. §80.475(a) provided:

> (i) AMTS applicants who propose to serve a navigable inland waterway that is less than 150 miles in length must serve that waterway in its entirety; and (ii) AMTS applicants who propose to serve a navigable inland waterway that is more than 150 miles in length must provide continuity of service along at least 60 percent of the waterway.

An AMTS license "automatically terminates, without specific [FCC] action," if the coverage requirement is not satisfied *by the construction-coverage deadline* (47 C.F.R. §1.946). Thus, if the coverage requirement were not timely met (within the two-year construction deadline), the affected license would no longer be valid, even if the licensee advertised it as valid or subsequently sold it to a third-party.

(d) Continuous Service Requirements

26. Under applicable FCC Rules, in order for its license to remain valid and not automatically terminated as discussed above, an AMTS licensee also has to continually provide "service" to its subscribers. (47 C.F.R. §80.60(d)(3)) A licensee who discontinues operations by failing to provide service is required to notify the Commission of the discontinuance of operations by submitting FCC Form 601 or 605 requesting license cancellation. (47 C.F.R. § 1.955(a)(3)).

27. "Service to subscribers" is defined in the applicable FCC Rules as "[s]ervice to at least one subscriber that is not affiliated with, controlled by or related to the providing carrier." (47 C.F.R. §22.99) In 2012, Defendant MCLM stipulated that "AMTS Service" means "service provided to end user subscribers (whether marine or land mobile) and/or the leasing of spectrum

and the protection of spectrum lessees' operations." (Ex. P397, ¶4, FCC Enforcement Bureau's Joint Stipulation with Defendant MCLM dated November 28, 2012).

28. In order to verify that this obligation and the other requirements of validity are met, 47 C.F.R. §1.6(a) imposes a general obligation on licensees to maintain stations logs and other records.

29. One part of the continuous service requirement is that the service had to be "interconnected" except for private mobile radio service (PMRS). 47 C.F.R. §80.475(d) and 47 C.F.R. §80.5 (2006). Being interconnected meant that the AMTS service had to be capable of connecting to the public switched network ("PSN") so that, for example, users on maritime vessels could call people on regular telephones or anyone else connected to the PSN, such as cellphone users. (T4 62:16-63:2 **[Havens]**) *See* Notice of Proposed Rule Making, FCC 04-171, *19 FCCR 15225, 69 FR 48440* at ¶2 and footnote 5; Implementation of Sections 3(n) and 332 of the Communications Act -- Regulatory Treatment of Mobile Services, Second Report and Order, GN Docket No. 93-252, 9 FCCR 1411, 1448 ¶ 83 (1994); *see also* 47 C.F.R. § 20.9(a)(5).

30. AMTS licenses were awarded for *commercial* mobile radio service (CMRS), not private mobile radio service (PMRS) (47 C.F.R. §20.3) since AMTS is defined as a form of "public coast" service subject to CMRS rules. (47 C.F.R. §20.9(a)(3); *See generally RegioNet Wireless Servs.*, 15 F.C.C.R. 16,119, 16,119-20 (2000))

31. In order to overcome the presumptive definition of AMTS as CMRS and thereby to provide PMRS, an AMTS licensee must seek and obtain approval from the FCC under 47 C.F.R. Sec. 20.9(b), a procedure that requires notice to the public and the opportunity for any interested party to petition for denial of the PMRS application. Unless one obtains FCC approval

to act as a PMRS, cessation of interconnectivity is a discontinuance of service, which invalidates the license under 47 C.F.R. §§1.995(a)(3) and 80.60(d)(3).

B. Applications for AMTS and Resulting Markets, both Product and Geographic

32. Advances in wireless technology since the 1980s have made possible valuable new uses for which the AMTS frequencies are particularly well-suited, some of which are fundamental to public safety. (T2 23:17-25:8 **[Havens]**). Such uses include "Positive Train Control" (PTC) systems that can reduce or eliminate railroad accidents caused by human error as described by Plaintiffs' expert in this field, former chief engineer, communications for a Class I railroad and railway engineering expert, Ron Lindsey, who helped develop PTC. (T1 98:22-99:2, 117:20-118:23 **[Lindsey]**) and Plaintiff Havens' testimony (T2 114:2-115:13 **[Havens]**).

33. These technological advances have been recognized as offering great benefits to the public and the economy. For example, in the *Rail Safety Improvement Act of 2008*, Pub. L. No. 110-432, § 104(a), 122 Stat. 4848, 4856 (codified at 49 U.S.C. § 20157), Congress mandated that all Class I railroad service in the United States deploy PTC by December 31, 2015. (T1 126:7-14 **[Lindsey]**). Railroads need access to long transportation corridors in which the systems can operate uninterrupted on a single channel. (*See*, 49 U.S.C. § 20157(a)(1)(A) through (C)).

34. The AMTS spectrum offers advantages in rail accident avoidance using systems employing PTC that cannot be duplicated on other portions of the radio spectrum in terms of availability of band width and feasibility of broadcast transmission over long distances, given antenna tower constraints and other technological limitations. (T1 118:24-127:21 [**Lindsey**]).

35. Another emerging technology for which AMTS is suited involves "Intelligent Traffic" applications using "Cooperative High Accuracy Location" (HALO) to reduce auto

accidents by giving accurate real time information to each vehicle on the road about the position of nearby vehicles. (T1 67:5-68:19; 79:7-80:17 **[Sengupta]**; T2 139:23-141:22 **[Havens]**).

36. Other new uses for AMTS include "Smart Grid" energy systems, "green" oil and gas exploration applications, reduction of traffic congestion, and other safety measures such as walking navigation systems for the blind. (T2 124:23-129:7 [**Havens**]).

37. Because of the characteristics of propagation of wireless signals in the AMTS frequencies and also because of the way the FCC has already divided up other available frequency ranges in the electromagnetic spectrum, the AMTS range is ideally suited for this use. (T2 23:17-25:8 **[Havens]**; T3 9:15-22:12 **[Havens]**). Defendant MCLM's own written materials confirm the accuracy of this fact. (*See, e.g.*, Ex. P102, p. 9; P374)

38. The testimony of Plaintiffs' expert in this field, Professor Raja Sengupta of the Department of Civil and Environmental Engineering, Systems and Transport Programs, of the University of California at Berkeley (T1 56:11-14) **[Sengupta]**, confirmed that vehicular accident avoidance systems using HALO could potentially avoid seventy-six percent of vehicular roadway accidents nationwide (T1 67:5-20 **[Sengupta]**) but requires 100% nationwide coverage (T1 86:4-17 **[Sengupta]**).

39. He testified that such systems are best implemented using the AMTS spectrum, which he agreed was a "sweet spot" (T1 92:7-13 **[Sengupta]**), given its great suitability in available band width and tower requirements, among other engineering specifics (T1 85:6-86:2 **[Sengupta]**). While HALO systems could theoretically operate at frequencies up to 300 MHz with some decrease in range (T1 95:10-12 **[Sengupta]**), for practical reasons relating to the way the FCC has assigned the spectrum for different uses, AMTS is the only suitable range of

frequencies for such a system. (T1 79:25-80:1-5 **[Sengupta];** *see also* Findings of Fact ("FF") pars. 15-17, *supra*, re: specific spectrum usage)**.**

40. Such an accident-avoidance system takes a standard GPS signal that is accurate to around 3 meters – good for locating a street address but not for avoiding an accident -- and refines it to an accuracy of around 10 centimeters. (T1 79:7-80:5 **[Sengupta]**). It does so using a system that requires only off-the-shelf hardware installed on each vehicle and thus is something that could be offered ubiquitously by OEMs on all new cars sold and as a simple retrofit on existing vehicles. (T1 88:20 - 89:5 **[Sengupta]**).

41. In the absence of 100% coverage, however, automobile manufacturers cannot take the chance of including such systems on their vehicles since they would have no assurance of effective use of the system everywhere in vehicles they sell with it and since coverage failures could expose the manufacturers to a serious risk of liability for accidents occurring where coverage is absent. (T1 79:7-80:17 **[Sengupta]**). For vehicular accident avoidance, the market for AMTS spectrum application is thus nationwide. (T1 67:21-68:19, 79:7-80:17, 86:13-17, 94:13-23 **[Sengupta]**).

42. The only present partial alternative to such a HALO-based accident avoidance system is radar-based systems unique to an individual vehicle and not part of any nationwide accident-avoidance system. (T1 67:21-68:19, 94:13-23 **[Sengupta]**). Those radar-based systems are inferior in multiple ways including that not every car will have one, as is economically and practically possible with a HALO system. (T1 67:21-68:19, 94:13-23 **[Sengupta]**).

43. For railway accident-avoidance systems, the technology's implementation has both regional and national dimensions. (T1 117:23-118:23 **[Lindsey]**). As Mr. Lindsey testified, railroad power equipment (engines and the like) must be "interoperable," meaning able

to operate on railroad systems interchangeably across the country. Interoperability includes having radio equipment that will operate interchangeably nationwide as well as within the regional operations of a specific carrier. Many pieces of rail equipment do, in fact, so operate in daily usage across the country. (T1 118:24-120:25 **[Lindsey]**).

44. Thus, these advantages for AMTS usage inhere regionally as well as nationally. (T1 120:1-121:2 **[Lindsey]**), and blockage of AMTS spectrum usage can thus successfully disrupt the implementation of PTC regionally as well as nationally. (T5 78:1-79:11 **[Havens]**; *see*, Exs. P240 (NJ Transit letter reporting difficulty in procuring spectrum for PTC, specifically noting the litigation between MCLM and Plaintiffs herein) and P241 at p. 14 (MTA Comments requesting Commission to directly allocate a 5 kilohertz wide block of spectrum in the 217-222 MHz range to MTA railroads for implementation of PTC)).

45. Defendant MCLM's own principals themselves made statements that relate to market definition along very similar lines, speaking of "repurposing," "reformatting of the spectrum" or "repositioning the spectrum" in their alleged development of "new applications" for AMTS. (Ex. P102, pp. 9-10; T6 40:21-41:6, 45:19-46:11, 47:2-10 **[S. DePriest]**; T7 60:24-61:6, 91:5-21 **[Reardon]**; T8 68:20-23, 70:19-21 **[Reardon]**; T9 21:1-5 **[Reardon])**.

C. Change from Site Based Licensing to Auctions of Geographic Licenses

46. Although the FCC began publicly discussing changes from a site-based to a geographic licensing system for AMTS in 1998, the system was not implemented immediately. (*See Amendment of the Commission's Rules Concerning Maritime Communications*, 17 F.C.C.R. 6685, 6689 n. 27 and accompanying text (noting that the *Third Report and Order*, 13 F.C.C.R. 19855, 19855 n.3 (1998) deferred resolution of issues regarding AMTS licensing until they could be considered as part of a broader reexamination of the AMTS licensing scheme); *see also*

Amendment of the Commission's Rules Concerning Maritime Communications, 17 F.C.C.R. 6685, 6689-6690 ¶8, (noting that the *Fourth Report and Order* and *Third Further Notice* released on November 16, 2000, proposed rules for geographic area licensing and proposed competitive bidding procedures for AMTS licensing and sought comment on same)).

47. First, the FCC froze the processing of any further site-based license applications on November 16, 2000. (*See The Fifth Report and Order*, 17 F.C.C.R. 6685, 6719-6720 ¶¶82-83 (2002) (deciding that suspension of processing applications would remain in effect until geographic auction applications begin)).

48. Then, after a period of public discussion and rulemaking, including opportunity for review and comment by interested members of the industry and the public, the first auction of geographic licensees, known as Auction 57, was held on September 15, 2004. (Ex. P297, at p. 1) A second auction, known as Auction 61, was held beginning on August 3, 2005. (Ex. P294, at p. 1).

49. As a result of those two auctions, both the Block A and Block B licenses for all 10 geographic regions in the U.S. have been awarded to the highest bidders, including Plaintiffs and Defendants in this action. (T2 27:2-8 **[Havens]**; Ex. D100).

50. Plaintiffs succeeded at the auctions in obtaining many geographic licenses in regions in which Defendants PSI and Mobex and then MCLM owned assertedly valid site-based licenses. (T3 6:15-9:2 **[Havens]**; Exs. P294, Attachment A, and P297, Attachment A; Ex. D100).

51. Defendant PSI obtained a B Block geographic license in the first auction (Ex. P297, Attachment A), and Defendants PSI and MCLM obtained additional geographic licenses

(four A Block licenses for MCLM and an additional B Block license for PSI) at the second auction. (Ex. P294, Attachment A; T4 29:6-10 **[Havens]**; Ex. D100).

52. Significantly, although Plaintiffs bid on geographic licenses in which Defendants asserted rights under site-based licenses, neither Defendant ever sought to bid for licenses in the same Block and region where the other Defendant owned site-based licenses. That is, the Defendants continued to pursue their territorial scheme in which each would seek to obtain the geographic licenses in Block A and Block B, respectively. (Mobex applied to bid in the first auction to bid on licenses pursuant to this scheme, but as it turned out Mobex was disqualified from participating due to failure to deposit its upfront payment).

D. Noninterference Rights of Incumbent Site-Based Licenses

53. In announcing its shift from a site-based licensing system to a system of auctioned licenses for large geographic regions, the FCC announced rules to protect existing or "incumbent" stations operating under site-based licenses within the geographic license regions from "co-channel interference" (i.e., crosstalk and other interference from multiple radio transmitters using the same frequency). *See The Fifth Report and Order*, 17 F.C.C.R. 6685, 6702-6703 ¶37 (concluding geographic licensees should be permitted to locate stations anywhere in their geographic area so long as incumbent operations are protected, marine-originating traffic is given priority, and certain major waterways are served). Primarily, those rules are found at 47 C.F.R. §80.385(b), but there have also been subsequent FCC Orders interpreting those rules.

54. Through these rules and Orders, the FCC has clarified that a site-based licensee actually operating under a valid license is to be protected, but that such non-interference rights do not permit a site-based licensee to expand the geographic scope of a station's broadcast contour beyond the station broadcast contour that is *actually operating at the time the*

geographic license covering the site-based region is issued. *See Northeast Utils. Serv. Co*., 24 F.C.C.R. 3310, 3311 n.12 (2009) (holding that "a site-based AMTS incumbent may not relocate its service beyond its existing contour" or undertake "any [other] modifications that impair the rights of the geographic licensee" (at 3314 n.42)), *aff'd. sub nom. Maritime Communications/Land Mobile, LLC*, 25 F.C.C.R. 3805 (2010)**;** *Dennis C. Brown*, 24 F.C.C.R. 4135, 4136 & n.9 (2009).

55. As a result of this right, an incumbent site-based licensee (with a valid license who is actually providing service to subscribers) would be able to create "holes" in the geographic licensee's coverage where the geographic licensee could not broadcast to avoid interfering with the incumbent's existing broadcast contour. (47 C.F.R. 80.385(b); T2 41:7-42:2 **[Havens**]; T6 101:17-22 [**S. DePriest**]). Thus, the incumbent site-based licensee must cooperate with the geographic license to provide the information necessary to determine the geographic scope of the "holes", and to insure the site-based license does not expand their broadcast beyond the contour that existed at the time the geographic license was issued.

56. Further, an incumbent licensee with what is actually an invalid site-based license, or one that fails to cooperate on providing information to the geographic licensee, corrupts the auction process for geographic licenses by distorting the bidding, by giving a false impression of greater encumbrance, more or larger "holes" than is actually the case. (T2 53:15-56:1 **[Havens]**).

E. Cooperation Rules and Orders

57. 47 C.F.R §80.385(b) is the basic Cooperation Rule, which has been supplemented by decisions and orders of the FCC ("Cooperation Orders").

58. Pursuant to Cooperation Orders, the incumbent site-based licensee is required to provide information upon request by the adjacent geographic licensee about the detailed operating parameters of its system:

> We expect incumbent AMTS licensees to cooperate with geographic licensees in order to avoid and resolve interference issues. This includes, at a minimum, providing upon request sufficient information to enable geographic licensees to calculate the site-based station's protected contour. This is necessary because a station's predicted 38 dBu signal contour is a function of its ERP [Effective Radiated Power]. . . but the power limit for site-based AMTS stations in the rules and on their licenses is based on transmitter output power rather than ERP . . . and determining a station's ERP requires additional information, such as antenna gain and line loss. (*Dennis C. Brown*, 24 F.C.C.R. 4135, 4136 n.9 (2009) [Emphasis supplied]).

See also Northeast Utils. Ser. Co., 24 F.C.C.R. 3310, 3311 n.12 (2009); *Maritime Communications/Land Mobile, LLC*, 25 F.C.C.R. 3805, 3807 (2010); *Warren C. Havens*, 28 F.C.C.R. 8456, 8456-57 (2013); and the *Fifth Report & Order*, 17 F.C.C.R. at 6704 (2002).

59. In spite of all of these rulings by the FCC, both sets of Defendants (PSI and Mobex/MCLM) have flagrantly refused to comply with these rules and have refused to provide this information to Plaintiffs. (T2 94:7-20, 95:14-96:17 **[Havens]**); T5 78:1-25, 79:1-11 **[Havens]**). PSI's Robert Cooper testified that he knew the information would be helpful but "on advice of counsel" he refused to provide the information unless the FCC specifically ordered him to. (Cooper Depo., 139:23 – 140:6, 141:20 – 142:15). Sandra DePriest testified that she thinks engineers would need to know the geographic licensee's broadcast proposal before they could determine whether it would interfere with an incumbent station's signal, but admitted that she did not know enough about the engineering to speak to that point. (T6 91:6-94:24 **[S. DePriest]**). By contrast, Robert Cooper testified he could easily calculate broadcast parameters for various stations. (Cooper Depo., 169:3-8, 260:9-16, 264:19-24, 269:21 - 270:10, 271:25-272:4). The FCC stated in a letter to MCLM's attorney Dennis Brown that the site-based

licensee must at a minimum furnish information sufficient to calculate its station's protected contour, which is a function of Effective Radiated Power (ERP) which cannot be calculated without information on antenna gain and line loss. (Ex. P554, n. 9 on p. 2, quoting *Northeast Utils. Serv. Co.*, *supra*, 24 F.C.C.R. 3310, n.12). But John Reardon instructed Mr. Brown not to furnish such information in response to Plaintiffs' request unless they first provided information about where Plaintiffs intended to build their systems. (T9 67:12-21 **[Reardon]**).

60. Sandra DePriest admitted that there are areas where MCLM owns a site-based license but has not built on it or broadcast a signal and where Havens is the geographic area licensee. (T6 95:17 – 96:3 **[S. DePriest]**). However, under FCC Rules, the reality is that the site-based licensee in that situation would have *no license rights*. That site-based license – which to be valid must have been timely constructed and remained in continuous, compliant operation ever since, as noted above – would be automatically terminated and revert to the geographic licensee. (*See*, 47 C.F.R. §§1.946(c), 1.955(a), 80.49(a)(3) and 80.385(c)). As noted above, none of the site-based licenses were issued after November 16, 2000, and their two-year construction deadlines would have therefore passed before the first auction.

61. As MCLM acknowledged at trial (T9 67:12-21 **[Reardon]**), both PSI and Mobex/MCLM took the position that Plaintiffs should first come to them with a completely engineered proposal as to its proposed construction and then they would say whether that proposal would interfere with their contour or not. (T4 77:9-25, 79:1-16 **[Havens]**). PSI and Mobex/MCLM did so knowing that without the detailed engineering information that the FCC required them to furnish to Plaintiffs, an engineering proposal could not be made. (Cooper Depo., 139:23-140:6, 141:20-142:15; T9 67:12-21 [**Reardon**]). And they did so also knowing that it would be in their self-interest individually, absent a conspiracy, to provide the information

to avoid a co-channel (same frequency) interference. (*Id.*) They knew also that doing so would have been in the public interest, to facilitate the use of scarce spectrum resources that all FCC licenses hold as a public trust, and avoid warehousing of spectrum. (Cooper Depo., 139:23-140:6, 141:20-142:15; T6 91:20 – 94:4, 95:23 – 98:7 [**S. DePriest**]); T9 67:12-21, 69:6 – 71:10; [**Reardon**]; and Ex. P554).

IV. THE CONSPIRACY

A. The Cooper and Daniel Agreement

62. The conspiracy at issue here had its inception in the early days of AMTS (around 20 years ago), when Fred Daniel, founder of Regionet that was subsequently acquired by Mobex, met with his friends Robert and Susan Cooper. Susan Cooper was the owner of PSI, and Robert Cooper is her husband and the owner of Touch Tel, which managed the operations authorized under PSI's licenses. (Cooper Depo., 52:8-23). As confirmed by David Kling, PSI's engineer who "maintain[s] the AMTS radio systems…throughout the United States" (Kling Depo, 12:21-13:8, 34:3-17), Touch Tel is affiliated with each and every PSI license (*Id.*, 37:21-39:24).

63. Mr. Daniel told the Coopers about the AMTS spectrum and how valuable it could be someday (indeed, the market price for AMTS licenses regularly rose, as the CEO of MCLM testified it was expected to do (T6 15:15-16:8, 44:17-25 **[S. DePriest]**)), and how if he, Daniel, applied for the A Block licenses and they, the Coopers, applied for the B Block licenses they could eventually control much of the AMTS spectrum between themselves (Cooper Depo., 194:24-195:8).

64. Specifically, Mr. Cooper testified to the terms of the agreement for concerted action and did so in an unequivocal manner. Mr. Cooper then tried to backtrack, particularly

after a lengthy objection from PSI's lawyer (*Id*. 195:12-196:3)**,** only to return later to the subject and reaffirm that to which he had testified initially (*Id.* 199:11-19).

65. What Mr. Cooper described in its specifics was the following: Mr. Daniel, being "very much into business mode", started talking about AMTS. (*Id*. 208:22-209:11). Cooper testified "…so a conversation ensued about what possibly AMTS after there was equipment and after it was installed might look like," and in this discussion the Coopers "got the message that – when Fred said, you know, I'm applying for [Block] A; if you want, you can apply for B. That was just about the gist of the conversation." (*Id*.)

66. Mr. Cooper was explicit about the terms of the agreement to divide the AMTS territories between them, with one owning A Block and the other owning B Block, even while denying an agreement's existence in his opening two words. His exact testimony is as follows:

> "No agreement. We did not know about AMTS until a conversation with Fred [Daniel] where he said 'I am going to apply for part 80 AMTS licenses similar to what they have in the central part of the United States out there. There's another block out there' -- and only Fred can say this the way I'm going to say this -- 'And you can do that if you want, you can apply for the other one because I'm not going to.' And that's the conversation we had. But it wasn't – that was it." (*Id*. 194:5-17).

Despite his initial two-word disclaimer, Mr. Cooper described very clearly an agreement, a conspiracy to divide the AMTS Blocks, and that is exactly how events unfolded after this agreement was entered into with Mr. Daniel and Regionet applying for A Block AMTS licenses, and PSI for B Block licenses. (Cooper Depo., 194:19-195:8). The reference to "what they have in the central part of the United States out there" is obvious, to one who knows the history of AMTS, as a reference to the third big player in AMTS, Waterway Communications, Inc. (Watercom), who had AMTS licenses along the Mississippi navigable waterways (including some Mississippi tributaries and the Gulf coast). What Daniel proposed to Cooper (and what

actually occurred) was that throughout the rest of the country, along both coasts and the Great Lakes region, PSI proceeded to obtain the B Block licenses and Daniel's company the A Block.

B. The Continuation of the Conspiracy with Mobex and then MCLM

67. In around 2000 – 2001, Mobex acquired both the A Block licenses of Regionet, the company that Daniel owned along with Paul vander Heyden, and the Mississippi basin/Gulf Coast licenses of Watercom. (T7 7:19-9:4 [**Reardon**]). Following that acquisition, Mobex owned virtually all the Block A site-based licenses and also Block B licenses in the Mississippi and Gulf Coast regions, and PSI owned virtually all the rest of the Block B licenses in the country.

68. Mr. Cooper's role with PSI/Touch Tel continued throughout the period covered by this litigation, and right up through the April 25, 2014 motion to quash a trial subpoena served on him by MCLM's counsel (*see* ECF No. 223) and the Court's May 14, 2014 Opinion and Order granting PSI/Touch Tel's Motion to Enforce Settlement (*see* ECF Nos. 250 and 251). The knowledge of the conspiracy and its manner of implementation on the other side of the conspiracy passed from Regionet to Mobex (which acquired Regionet and its key personnel in 2000 or 2001) (T7 10:1-10 **[Reardon]**)), and then to MCLM which agreed to purchase Mobex's AMTS licenses on May 20, 2005, and around that time began to rely on the services of Mobex's CEO, John Reardon (T6 14:2-15:14 **[S. DePriest]**), whose involvement had been a constant throughout Mobex's operation.

69. Mr. Reardon's career as a senior executive (having started as a telecommunications lawyer) spanned both Mobex and MCLM throughout their period of involvement in AMTS. (T7 6:6-23, 6:24 – 7:18, 15:10-21 **[Reardon]**). Reardon is an expert in FCC law. (Predmore Depo., 103:18 – 104:25)

70. Mr. Daniel's senior colleague in his company Regionet was Paul vander Heyden. (*See* Cooper Depo., 187:5 - 188:7) A one-page letter from Mr. Reardon to the FCC dated December 5, 2000 lists Messrs. Daniel and vander Heyden as well as Mr. Reardon himself as all being present on behalf of Mobex at a meeting to discuss with FCC staff a matter involving Mobex. (Last page of Ex. D105, Bates # P0046614). The letter demonstrates that those with knowledge of the conspiracy with PSI moved from senior positions at Regionet to work for Mobex and were clearly associated with Mr. Reardon in that Mobex work.

71. At a meeting with Plaintiff Warren Havens that occurred shortly before Mobex's acquisition of Regionet, Messrs. Daniel and vander Heyden told Mr. Havens that Regionet had an option to purchase PSI's licenses. (T4 17:14-19:9 **[Havens]**). Subsequently Mr. Havens asked Mr. Cooper of PSI about the purchase option, but Mr. Cooper would neither confirm nor deny it. (T4 24:22-26:6, 10:12-11:5, 77:9-16 **[Havens]**).

72. Mr. vander Heyden continued in active employment with Mobex for a period of years after Mobex acquired Regionet, as Mr. Reardon acknowledged. (T7 10:1-22 **[Reardon]**). He and Mr. Reardon worked closely together, and they had ample opportunity to discuss the agreement and the conspiracy contemplated under it. (T4 77:14-25 **[Havens]**).

73. Mr. Reardon also met once or twice a year with Mr. Cooper from May of 2001 onward (T8 18:14-21 **[Reardon]**), and acknowledged that business subjects were discussed. (T8 11:9-13:15 **[Reardon]**). Mr. Reardon's involvement on the Mobex side of the conspiracy continued through his key role as manager of MCLM and down to this day as a representative of MCLM at trial and a managing director of Choctaw in the MCLM bankruptcy,

74. After PSI's Cooper and Mobex's predecessor Mr. Daniel agreed to cooperate in obtaining Block A and Block B licenses, Defendants proceeded in just the way their agreement

contemplated even to the extent of taking, respectively, the A Block and the B Block of the AMTS spectrum in the Great Lakes geographic license region in the auctions to assure the conspirators' continuing ability to block Plaintiffs and other entrants under the new AMTS geographic licensing program. (Exs. P294, Attachment A and 297, Attachment A). The only exception to the division between them of Block A and Block B arose when Defendant Mobex acquired Watercom with its existing system of A and B Block stations already in place, at around the same time as it acquired Regionet. (T7 8:17-20, 17:20-18:19 **[Reardon]**).

75. PSI and Mobex/MCLM supported each other in ways that only made sense economically if they were acting in concert. Examples, discussed in more detail *infra*, include cooperating to conceal that their (and each other's) site-based licenses had terminated automatically (through failure to timely construct or continually provide service), to scare off others from bidding by falsely asserting that the geographic licenses were "heavily encumbered" by their incumbent licenses (which in many, if not all, cases were actually not valid). They knew about the failures that rendered each other's licenses invalid, but behaved under a pact not to blow the whistle on each other in order to enlarge the perceived scope of their valid incumbent rights, to obtain leverage in the geographic auctions (see, e.g., Ex. P102, p. 7, wherein MCLM's agent, Spectrum Bridge refers to such leverage in a prospectus it created for MCLM in 2008; T7 143:7-20 **[Reardon]**), and to try to capitalize on license rights they no longer had.

76. PSI even urged in its public filings with the FCC a redoing of Auction 57 and allowing Mobex to participate in the re-done auction, even though Mobex had been disqualified by the FCC from participation in Auction 57 because it had failed to submit any upfront payment. This action by PSI was against its own interests, unless those interests encompassed supporting this conspiracy.

77. Likewise, in Auction 61, as also discussed in more detail *infra*, PSI and MCLM again engaged in mutual support, even when a vigorous competitor would have been seeking to strike the other from the box, just as both actually joined in seeking to do to block Plaintiffs from bidding jointly.

78. Similarly, they cooperated by taking identical positions in refusing to disclose the broadcast contours of their stations, so as block the geographic licensees from using the spectrum, and to conceal the extent to which their non-interference rights were limited or had reverted to the geographic licensees (due to their small or nonexistent broadcast footprints).

C. Mobex and PSI Cooperate in Auction and Plan to Bid Collusively

79. On April 4, 2004, more than five months before Auction 57, the FCC, pursuant to its delegated authority (47 U.S.C. Sec. 309(j)(3)(E)(i), 47 C.F.R. Sec. 0.131(c)), issued public notices and solicited public comments on the plan for the auction. (*Auction of Automated Telecommunications System Spectrum Scheduled for September 15, 2004*, 19 FCCR 6274 (2004)).

78. On April 23, 2004, Mobex requested that the FCC delay the auction for four months, purportedly to warn the public about "the heavy presence of incumbents associated with this unique spectrum." (Ex. P388, p.1). On April 30, 2004, PSI filed a "Reply" to Mobex's comments, fully supporting Mobex's request for the same reason, and noting that a "technical analysis … with respect to requirements for interference protection to incumbent licenses will be time-consuming." (Ex. P389, p.2) At that time, Mobex and PSI between them controlled virtually all the incumbent licenses, and were cooperating in trying to gain control of the geographic licenses as well, by scaring off potential bidders by warning about their asserted incumbent rights. (T3 78:22 – 79:3 **[Havens]**). However, as discussed in more detail below (*see*

Section III.F, *infra*), they knew that many of their own and each other's licenses were not valid, as they would soon admit to the FCC. (T2 53:12 – 55:6 **[Havens]**; T3 38:3-39:22 **[Havens]**; *see* Exs. 378 and 38o, ("audit letters" dated May 26, 2004 to PSI and Mobex, discussed below) To do the "analysis" they suggested, a prospective bidder would have to have information about whether the PSI and Mobex licenses were actually validly constructed and in continuous service, which is information PSI and Mobex refused to divulge to Plaintiffs and others in flagrant violation of FCC rules. (T3 76:6 – 79:11 **[Havens]**).

79. Moreover, analysis of "requirements for interference protection" depended on information about the actual broadcast contours of Mobex's and PSI's operating stations, but both Mobex/MCLM and PSI chose to keep such information secret, again in violation of FCC Cooperation Rules and Orders, even after the auctions, as discussed below (*see* Section III.H, *infra*).

80. On May 26, 2004, the FCC announced the auction procedures and minimum opening bids required to be deposited by those seeking to bid in Auction 57. (*Auction 57 Public Comment Notice*, 19 F.C.C.R. 9518) The FCC required each bidder to deposit, for each license on which it sought to bid, an upfront payment equal to the minimum bid set by the FCC. Making this deposit was a prerequisite for qualifying as a bidder in the auction. (T2 27:25-29:16 **[Havens]**); *Automated Maritime Telecommunications System Spectrum Auction Scheduled for September 15, 2004*, 19 F.C.C.R. 9528, 9541-44 (2004))

81. Mobex and PSI applied in the auction only for the geographic licenses that did not contain any site-based licensed stations of the other. In particular, Mobex applied only for geographic licenses having the A-Block in all of the nation and in addition the B-block (with the A-block) in the "Mississippi River" license-4 area, and PSI applied only for the geographic

licenses having the B-block in all of the nation but for the Mississippi-River area 4. (Exs. P296, and P297; Ex. P118, n.6 at pp. 1-2; T4 28:10 – 29:17; T2 53:4 – 56:20 [**Havens**]). These geographic licenses, by areas, are shown on the FCC map of AMTS geographic licenses. (Ex. D101). Each area has an A-Block and a B- Block license. (T2 12:13-23 [**Havens**]).

82. There was no financial or other charge by the FCC and no risk to Mobex or PSI to have applied for all licenses or to have submitted to the FCC the qualifying "Upfront Payments" for all licenses (or any quantity of licenses). (Ex. P131, ¶77 and n. 154 at p. 23).

83. No bidder is permitted to inform any other bidder of its bidding plans or financial capabilities, as that would be prohibited collusion, unless the bidders enter an auction-bidding agreement and publicly disclose that to the FCC and other bidders in the pre-auction Form-175 application. (Ex. P296, pp. 6-7 ("Prohibition of Collusion")) PSI and Mobex did not disclose any such bidding agreement, and complained of the disclosed bidding of multiple Havens-controlled entities (see below).

84. Given knowledge each had about the other's failure to meet construction, coverage and service requirements, described above, PSI knew that if it bought the geographic licenses that encompassed Mobex site-based stations, the spectrum in those stations should at no additional cost "revert automatically" to PSI under 47 C.F.R §80.385(c), and likewise Mobex knew that if it bought the geographic licenses that encompassed PSI site-based stations, the spectrum in those stations should at no additional cost "revert automatically" to Mobex. Thus, if PSI or Mobex were independent genuine competitors, and were to acquire both the geographic license where it was already licensed and then also the geographic license where the other one was already licensed (with site-based licenses), it would have been able to constrain the other's ability to ever expand its allegedly-valid systems, and thus reduce the other's long-

term viability. Mobex and PSI therefore knew of the other's vulnerability, and hence there was mutual assured destruction for each of them absent the adherence of both of them to their conspiratorial agreement. Demonstrating this agreement, they each applied in Auction 57 only for the geographic licenses other than those that held the other's site-based licenses.

D. PSI Requests the FCC to Invalidate the Auction 57 Results

85. One of the most startling incidents of cooperation between ostensible competitors was PSI's request to invalidate the first auction of geographic licenses.

86. As it turned out, Mobex was unable to deposit the upfront payment required of it, by August 20, 2004, to bid on any license. (T2 67:7-15 **[Havens]**; T4 28:10-29:5 **[Havens]**). As a result, Mobex was not qualified as a bidder for any of the licenses in Auction 57 and thus was unable to participate in that auction. (Ex. P296, Attachment C).

87. On August 13, 2004, just seven days before the deadline for depositing upfront payments as a prerequisite to qualify as a bidder in the auction, Mobex submitted a number of filings with the FCC seeking disqualification of Plaintiffs AMTS Consortium and Telesaurus VPC on the grounds that it would be unfair for two entities controlled by Warren Havens to bid in the same auction on the same licenses, and requesting the FCC to stay the auction. (*See Motions for Stay of Auction No. 57 and Requests for Dismissal or Disqualification*, 19 F.C.C.R. 20,482 (2004); T4 30:2-31:10 **[Havens]**; Ex. P118, ¶3 and n.13 on p.2).

88. Because Mobex had been disqualified from participating in Auction 57, it also lacked standing thereafter to challenge the auction procedures. (T2 43:8-17 **[Havens]**; T9 45:7-14 **[Reardon]**). However, just a week later and one day before the start of the auction, PSI submitted a letter to the FCC's Auction and Spectrum Access Division, supporting Mobex and

requesting a ruling on Mobex's requests to disqualify the bidding Plaintiffs. (T2 44:3-12 **[Havens]**; Ex. P118, ¶4 on p. 3).

89. On the next day, September 15, 2004, which was the same day as the auction, the FCC's Auction and Spectrum Access Division released its Order denying Mobex's challenge to the participation of AMTS Consortium and Telesaurus VPG. (Ex. P119, at p. 8; T4 30:2-31:10 **[Havens]**). The same Order also denied Mobex's request for a stay of the auction and request for a stay of the deadline in which to deposit upfront payments. (*Id.*)

90. Auction 57 proceeded on September 15, 2004, as planned. PSI only sought to bid on a single license – the Block B license for the Great Lakes region – and as noted above, Mobex was disqualified and could not bid on any license. As it turned out, none of the other qualified bidders bid against PSI for the Great Lakes B Block. Therefore, PSI acquired the Block B geographic license for the Great Lakes region (Ex. P297, Attachment A), and because it was the only bidder for that license, PSI paid only the amount set by the FCC as the minimum bid for that license, the best possible result for PSI. (Exs. P296, Attachment A and P297, Attachment B).

91. Nevertheless, in spite of having obtained in the auction the only license for which it had bid, and at the absolute minimum price, PSI did something highly unusual and completely inconsistent with the actions of a competitor acting independently: PSI moved for reconsideration of the FCC's denial of Mobex's objection to the participation of more than one Havens-controlled entity in the auction and asked that the auction be redone. (T2 44:3-45:21) **[Havens]**).

92. PSI's decision to do so was unusual for a number of reasons, including the fact, noted above, that none of the Havens-controlled entities had bid against PSI in the auction.

Because those entities had exhausted available funds bidding successfully on other licenses, they decided not to compete with PSI for the Great Lakes Block B license – which was the only license PSI had made a deposit for and had been qualified to bid on in the auction. (T4 95:7-96:8; T5 64:17-65:17 **[Havens]**). Thus, PSI's challenge to Havens-controlled entities bidding in the auction was a challenge to something that had not affected PSI's outcome.

93. Even more unusually and again completely inconsistent with the actions of a competitor acting independently, PSI requested in its Petition for Reconsideration that the FCC invalidate the results of the auction, and *redo the entire auction*. (T2 46:18-47:8 **[Havens]**; Ex. P118, ¶6 at p.3)). Again, PSI had obtained the only license it bid for at the minimum opening bid price, without competition from any other bidder. If the auction were rebid, PSI would have this favorable result canceled and would face the uncertainty of the outcome of the redone auction, including potentially not getting the license it had won, or having to pay more for it.

94. Equally inconsistent with the actions of a competitor acting independently, PSI requested the FCC to *permit Mobex to participate in the proposed "do-over" auction*, even though Mobex had been disqualified the first time around notwithstanding that, if it were acting independently, Mobex could compete against PSI. (*Id*.)

95. On April 21, 2005, the FCC denied PSI's Petition for the redoing of Auction 57. (Ex. P118, p. 9; T4 32:24-33:19, 34:19-36:2 **[Havens]**).

E. PSI Raised No Concerns about MCLM's Conduct in Auction 61

96. In Auction 61, MCLM applied for and was granted "very small business" status based upon certain declarations made under penalty of perjury concerning its gross revenues that were belatedly admitted to be false. (Ex. P357, pp. 4-6, 20). PSI raised no concerns about the

misuse by MCLM of the very small business bidding status, although PSI's Mr. Cooper was aware of it. (Cooper Depo., 336:13-24).

97. Even after the fraud was described in great detail in Order 11-64 (Ex. P357) -- from MCLM's unlawful claiming of very small business status (and a discount in the bidding of 35%), to the grudging revelation of part of the DePriests' holdings leading to a claiming of small business status (and a discount in bidding of 25%), subsequently revealed also to be a fraudulent claim as more of Mr. DePriest's holdings were finally disclosed by MCLM after insistent prodding by the FCC's Wireless Telecommunications Bureau and then by its Enforcement Bureau -- PSI remained silent about MCLM's repeated frauds and avoided any criticism of MCLM, while at the same time both PSI and MCLM continued to cooperate in vigorously contesting Plaintiffs' joint bidding (held to be entirely lawful by the FCC). (Ex. P357, at 20).

98. When Sandra DePriest -- who was trained as a telecommunications lawyer (handling among other things FCC license applications) as well as a general business lawyer first with a law firm and then for her husband's company (T6 5:19 -6:5, 23:22-25:9 **[S. DePriest]**) -- was asked on cross-examination to explain such deceitful conduct, her only response, incredibly, was to invoke the attorney-client privilege. (T6 52:12 -59 **[S. DePriest]**). By this response, she implicitly acknowledged that she can no longer assert even remotely plausibly ignorance as a defense, as was done -- certainly with her knowledge and undoubtedly under her direction as CEO of MCLM -- in the initial responses of MCLM to the FCC, when the lies and omissions in MCLM filings caught up with her. (Ex. P357, at p. 20). Moreover, she can't be claiming the privilege as advice she gave herself, nor is it credible that if she had given a competent advisor the true state of facts, the advice would have been given to commit this deceit on the FCC. In fact, the attorney-client privilege is never a shield against committing fraud and deceit. *See, e.g.,*

Clark v. United States, 289 U.S. 1, 15 (1933) ("A client who consults an attorney for advice that will serve him in the commission of a fraud will have no help from the law. He must let the truth be told.")*; In re Impounded*, 241 F.3d 308, 316 (3d Cir. 2001); *In re Grand Jury Proceedings*, 604 F.2d 798, 802 (3d Cir. 1979).

99. With a discount of 35% or even of 25%, a bidder has an enormous advantage in the bidding process, because it needs to pay that much less if it is a successful bidder and can therefore afford to go significantly higher in the bidding competition than it could absent the discount and win licenses which it potentially could not otherwise afford. (T3 90:23-93:8 **[Havens]**).

100. As the FCC stated,

> "It took more than a year – and only after WTB [the Wireless Telecommunications Bureau] determined that Maritime [MCLM] had run afoul of the 'bright-line' spousal attribution provision in section 1.2110 – for Maritime to amend its application, at staff direction, to disclose what the company represented, at that time, were the gross revenues of Donald DePriest and his affiliates. In this amendment, Maritime stated, among other things, that Donald DePriest controlled just one company, American Nonwovens Corporation. Several weeks later – and only in response to ongoing administrative litigation – Maritime belatedly acknowledged that Donald DePriest actually controlled three more entities: Charisma Broadcasting Co. [of which MCLM's CEO Mrs. DePriest had been an attorney employee], Bravo Communications, Inc., and Golden Triangle Radio, Inc. Some three years later – and only in response to a written request for information from WTB – Maritime divulged more than two dozen additional affiliates of Donald DePriest. Several months thereafter – and only in response to an Enforcement Bureau letter of inquiry – Maritime disclosed information about Donald DePriest's involvement in MCT Corp."

(FCC 11-64 Order, Ex. P-357, at 20 (citations omitted)).

101. Throughout this period, MCLM's ostensible competitor PSI remained silent about the conduct of MCLM even though a non-conspiring competitor would be expected to be "all

over" it just as PSI was vigorously attacking Plaintiffs in repeated FCC filings and subsequent appeals to the federal courts concerning Plaintiffs' bidding.

102. This kind of action is inconsistent with the economic best interests of each competitor that engages in it, absent a conspiracy.

F. Defendants Cooperated in License Warehousing

103. Similarly, vigorous competitors would have blown the whistle on a competitor who failed to build out, just as Plaintiffs did with respect to the Defendants (T3 109:9-112:25, 119:11-121:14 **[Havens]**); yet neither side of this conspiracy did so with respect to the other.

104. Given the scarcity of available spectrum for commercial ventures, surrender to the FCC for cancellation of licenses that have automatically terminated (as required by the Rules) is essential to prevent unlawful "warehousing" of spectrum. Such "warehousing" occurs when a party who acquired site-based licenses but failed to meet the requirements to avoid automatic termination does not return the licenses to the FCC for cancellation and continues falsely to hold out the license as a valid, constructed and operating license.

105. Spectrum warehousing is illegal. Congress has directed the FCC to adopt "performance requirements" that "prevent stockpiling or warehousing of spectrum by licensees or permittees." 47 U.S.C. § 309(j)(4)(B); *see also Melcher v. FCC*, 134 F.3d 1143, 1161-62 (D.C. Cir. 1998) (describing the purposes of § 309(j)(B)(4)'s anti-warehousing mandate); *Expanding America's Leadership in Wireless Innovation*, 78 Fed. Reg. 37,431, 37434, § 7(c) (June 14, 2013) (a presidential memorandum exhorting the FCC "to provide strong incentives for licensees to put spectrum to use and avoid spectrum warehousing").

106. The whole point of FCC rules such as 47 C.F.R. §§ 1.946, 1.955, 80.49 is to fulfill the mandate of 47 U.S.C. § 309(j)(4)(B). In *TMI Communications & Co., Ltd. Partnership &*

Terrestar Networks Inc., 19 F.C.C.R. 12603, 12604 (2004) (footnotes omitted), the FCC explained (in the context of communications satellite licensing but in general terms that apply equally to AMTS):

> It has been a longstanding Commission policy to impose milestone schedules for system implementation in satellite licenses. Milestone schedules are designed to ensure that licensees will proceed with construction and launch their satellites in a timely manner, and that spectrum resources will not be "warehoused" by licensees who are unable or unwilling to proceed with their plans. Warehousing could hinder the availability of services to the public at the earliest possible date by blocking entry by others who would be willing and able to proceed immediately with the construction and launch of satellite systems using the same spectrum. Moreover, warehousing undercuts decisions by the Commission to allocate scarce spectrum resources to satellite services over other competing services.

107. Throughout the process of formulating its regulation of AMTS and other maritime services, the FCC has articulated this policy against warehousing:

> We therefore believe it necessary to establish a construction requirement that will encourage construction and prevent spectrum warehousing while providing geographic licensees with sufficient flexibility to meet market demands for service. We agree … that, because of the importance of public coast stations to maritime safety, the construction requirement should not be too loose, particularly along coastlines and other "navigable waterways." … We shall … require substantial service within five and ten years ….

Amendment of the Commission's Rules Concerning Maritime Communications, 13 F.C.C.R. 19,853 (1998) (footnotes omitted). As noted recently in a decision concerning the parties to this action (*Environmentel LLC*, 29 F.C.C.R. 2942, 2943 (2014)):

> Under Section 1.946(e) of the Commission's rules, an extension of time to complete construction "may be granted if the licensee shows that the failure to meet the construction or coverage deadline is due to involuntary loss of site or other causes beyond its control." Section 1.946 also lists specific circumstances where extension requests will not be granted, including delays caused by a failure to obtain financing, because the license undergoes a transfer of control, or because the licensee fails to order equipment in a timely manner. The applicable extension standard

> must be considered in conjunction with Section 309(j) of the Communications Act, as amended, which states that the Commission shall include performance requirements to ensure prompt delivery of services, to prevent stockpiling and warehousing of spectrum by licensees, and to promote investment and deployment of new technologies and services.

108. Under FCC regulations, site-based AMTS licenses were required to notify the FCC's office in Gettysburg, Pennsylvania, when their stations had met the construction requirements and began broadcasting to subscribers within the two-year construction period. Instead of doing so, both PSI and Mobex submitted strangely-worded notices announcing that they would "commence testing to commence service" before the looming deadlines. (T3 85:16 – 86:15 [**Havens**]); Exs. P382 and P384, in which the FCC stated to both PSI and Mobex, "we find that you provided estimated future dates for activation and/or to begin initial tests to commence service, rather than notification that construction had been completed by a certain date.")

109. It strains credibility to imagine that both PSI and Mobex independently hit upon the same strategy to fool the FCC into thinking the construction deadlines were met, when in fact they were not. As noted above, PSI's Robert Cooper admitted PSI never had any subscribers even for those systems he asserted were built, unless you count technicians who initially tested the equipment, the so-called "radio people", as subscribers (which of course they were not). (*See* Cooper Depo. 154:10-155:4 (Sturgeon Bay), 155:10–24 (Whitehall), 156:9-22 (Port Huron), 157:21-158:21 (Detroit), 168:16-169:2 (Buffalo), 170:4-19 (near Erie, PA), 170:21-171:19 (Cleveland), 171:22-172:15 (clarification of his attempts to count radio installation technicians as 'customers'), 172:20 – 173:14 (Toledo), 177:1-19 (Suffolk County, MA), 179:6-25 (Coos Bay), 245:5-18 (Ocean City, MD never constructed), 269:21-270:10 (Vacaville, CA, tries to pass himself and his engineer David Kling off as 'customers'), 271:12 -272:4 (Miami), 272:8-20 (New Bern, NC), 272:18-273:1 (Suffolk, VA), 279:17-280:6 (Oak Hill, FL), 281:5-22

(Rehobeth, MA 'used at one time way back when'), 285:20-286:9 (Raymond, ME), 289:9-18 (Balm, FL never constructed), 289:24-290:8 (St. Petersburg) and 309:24-310:17 (Port St. Lucie or Ft. Pierce, FL). As such, the coverage and continuous service requirements could not have been met, and those licenses terminated automatically on the two-year anniversary of their issuance, without further action by the FCC. (*See* 47 C.F.R. §1.955(a)(1)) Mr. Cooper knew that Mobex/MCLM had a business model of not putting radios in and keeping them working but just investing in licenses with "de minimis" customers. (Cooper Depo., 225:26 – 226:17). However, neither PSI nor Regionet/Mobex/MCLM turned their own invalid licenses in for cancellation as required by the Rules, or blew the whistle on the other.

110. The FCC maintains a "Universal Licensing System," or "ULS", which is an on-line service that allows electronic filing of applications processed by the Commission. (*see* http://wireless.fcc.gov/uls/index.htm?job=home). The ULS is one of the sources of data on licenses widely relied on by the wireless industry.

111. Both PSI and Mobex/MCLM filed renewal applications and notices of completed construction on the ULS for licenses that were not actually valid. By doing so, they both effectively represented to the marketplace, through the ULS, that they had "non-interference" rights they did not actually have. (T2 129:8-130:17 **[Havens]**). The fact that both PSI and Mobex/MCLM made such similar false filings is further evidence suggesting a common strategy of concerted action.

112. Mr. Cooper admitted that PSI does not make any revenues from AMTS. (Cooper Depo., 89:22-91:3). PSI never had any actual customers for the vast majority of its stations, and probably no actual paying customers at *any* of its stations, but makes money selling licenses.

(Cooper Depo., 213:1-15). Yet Mobex and then MCLM did not blow the whistle on PSI, and vice-versa.

113. Although Mr. Cooper tried to make it appear that PSI once had customers at its stations in the form of "radio people" (and thereby satisfied the FCC "service" requirement), when pressed on the matter in deposition he admitted that he was referring to people who had installed the radio equipment and tested it briefly to see that it worked. (Cooper Depo., 269:21 - 270:10, 271:12 – 272:4, 272:18 – 273:1, 285:20 – 286:9, 291:16 – 292:2). Of course, such technicians who tested equipment in connection with their performance of installation services are not subscribers of services as required by the FCC for meeting coverage and continuity of service requirements. (*See* 47 C.F.R. §§ 1.955(a)(3), 22.99, 80.60(d)(3), 80.475(d) and discussion of "continuous service requirements", *supra*.)

114. What Mr. Cooper eventually conceded at his deposition (see citations above) amounted to an admission that PSI had never met its requirements for maintaining the validity of virtually every one of its site-based licenses (the only exception being some stations in Southern California). Mr. Kling, PSI's AMTS engineer, confirmed that only a handful of PSI stations provide service to customers. (Kling Depo., 91:16-92:5, 97:17-23, 103:16-104:13).

115. Mobex's similar conduct is reflected by a chart that David Predmore, Mobex's General Counsel, had an administrative assistant prepare in around 2004). (Exh. P278; Predmore Depo. 177:16 – 178:8, 188:16 – 189:6). One column of the chart indicated by a "Y" or "N" whether various stations were "revenue generating". After first trying to say not "revenue generating" meant not "profitable", Mr. Predmore admitted that it really meant there were no customers at that time for those sites. (Predmore Depo., 186:2 – 187:8) Mobex's complete loss of paying subscribers was confirmed in a letter John Reardon wrote to the Universal Service

Administrative Company, dated August 16, 2006, stating that by 2004-2005, Mobex's customers were not interconnected and revenues were "de minimus". (Ex, P375, page 3 of 4, first paragraph under heading "Item Three"). Mr. Reardon at trial confirmed that the letter appears accurate. (T8 44:1-14 **[Reardon])**. Mr. Reardon explained therein that Mobex's predecessor Regionet (Fred Daniel's company) had "only a few dozen customers and little revenue" (Ex. P375, p. 2, 5th paragraph). The drop off of subscribers and actual service continued as satellite phones and cellular telephone replaced ship-to-shore radio, to the point where Mobex no longer fulfilled its continuous service requirement (which included interconnected service). Thus, under FCC rules (see, Section III.A.2, *supra*) those site-based licenses automatically terminated and reverted to the geographic licensee of the region (in many cases, Plaintiffs)

116. Significantly, when Mobex acquired Regionet's licenses, and when MCLM acquired Mobex's licenses, neither buyer bothered to retain the documentation evidencing the construction and continuous operation of the stations, which was a prerequisite to the validity of the licenses. Mobex's general counsel and designated Rule 30(b)(6) witness, attorney David Predmore (Predmore Depo., 8:13-14, 10:8-21), testified that these records existed, but were never taken by MCLM when MCLM acquired the licenses. (*Id*., 68:1-11) As noted above, maintenance of such records is required under FCC rules. (47 C.F.R. §§1.6(a)) Thus, MCLM was not able to produce evidence showing that they had met these crucial requirements in extensive investigation and litigation about the validity of their licenses before the FCC.

117. Mr. Predmore submitted to the FCC a declaration dated August 5, 2011, in support of MCLM, saying among other things that the records had been destroyed, when they hadn't. (Predmore Depo, 68:21 – 69:13; Ex. P277) Although Mr. Reardon testified at trial that Mr. Predmore "may have" sent him a draft and he "may have" helped him with dates (T8 33:9-

12), Mr. Predmore testified that Mr. Reardon had drafted most of the declaration and induced him to sign it, even though he really did not have personal knowledge of many facts asserted therein. (Predmore Depo., 141:21 – 142:10, 141:18-21, 143:23 – 144:15, 145:13-17, 147:6-17, 151:10-15)

118. In FCC Audits, both PSI and Mobex admitted that many of their stations were not constructed and the licenses were consequently canceled. (T3 60:14-61:23 **[Havens]**). PSI demonstrated an identical absence of documentation, demonstrating yet again how PSI and Mobex/MCLM conducted unlawful warehousing activities in lockstep fashion. (T3 55:5-56:15 **[Havens]**).

119. Unlike PSI and Mobex, who turned a blind eye to each other's licensing conduct, Plaintiffs vigorously challenged in the FCC what they perceived as improper spectrum warehousing by both PSI and Mobex. (T3 87:11-88:2 **[Havens]**).

120. After receiving numerous complaints from Plaintiffs about PSI and Mobex's unlawful warehousing, the FCC issued audit letters, demanding PSI and Mobex provide information about the dates certain of their stations had been constructed. The first audit letters addressed to Mobex and PSI were dated May 26, 2004 (Exs. P378 and 380, respectively), and PSI and Mobex responded on June 22, 2004, and June 25, 2004, respectively. (Exs. P379 and 381).

121. The audit letters to both PSI and Mobex were virtually identical, because the behavior of PSI and Mobex had been virtually identical. For example, the letters advised PSI and Mobex of the law regarding automatic termination:

> The Commission's Rules require construction with a specified time frame (see Section 80.49 of the Commission's Rules, 47 C.F.R. §80.49) in order for the license to remain valid. Specifically, when a licensee fails to

> construct its authorized facilities within the requisite construction period, the station license cancels automatically.

(Exs. P378 and P380). The fact that both PSI and Mobex/MCLM flouted this Rule regarding automatic termination using the same means is further evidence of concerted action.

122. In response to those audit letters, both PSI and Mobex admitted that a number of their stations had not been constructed, putting "NO" in the third column per the instructions. PSI's response to the first audit letter admitted that *all 21 of the 21 listed PSI stations had not been constructed* (Ex. P381, pp. 2-3), while Mobex responded that *21 of the 29 listed Mobex stations had not been constructed* (Ex. P379, pp. 2-3; T3 64:12-66:16 **[Havens]**). As noted in the letters and in the Commission's Rules, the consequence of such failure to timely construct the required facilities was that the corresponding licenses had cancelled automatically and did not remain valid beyond the initial 2-year construction period. (Exs. P378, p. 1 and P380, p. 1).

123. As a result of these responses, all of those licenses for which PSI and Mobex responded "NO" were cancelled, and reverted to the owners of the surrounding geographic license (which in some cases were Plaintiffs). (T3 61:13-23, 70:20 – 71:10 **[Havens]**). However, because the cancellation of those licenses was not made known until after the September 15, 2004 auction, and because PSI and Mobex had held those 42 licenses out to the public, during the time of the auction and before, as being valid incumbent site-based licenses that would encumber the geographic licenses with noninterference rights, the auction had been unfairly influenced by the conduct of PSI and Mobex. (T3 70:20-71:10 **[Havens]**).

124. The FCC issued a second pair of audit letters to Mobex and PSI dated September 13, 2004 (Exs. P382 and P384, respectively), and PSI and Mobex responded on October 11, 2004 and October 13, 2004, respectively. (Exs. P383 and P385). These letters were virtually identical to the first FCC audit letters dated May 26, 2004 (Exs. P378 and P380), except that they

raised the issue of PSI's strangely worded notices about expected completion of construction. The letters to both PSI and Mobex state,

> In reviewing construction information previously submitted for certain AMTS facilities for which you hold a license, we find that you provided estimated future dates for activation and/or to begin initial tests to commence service, rather than notification that construction had been completed by a certain date.

(Exs. P382 and P384). The fact that both PSI and Mobex submitted such strangely-worded notifications (T3 69:9 – 70:19, 85:16 – 86:13, 87:11-21 **[Havens]**) is evidence that they acted in concert. The second pair of audit letters identified different station locations (i.e., they did not incorporate the licenses in the first list). (T3 68:11-69:31, 85:16-86:18 **[Havens]**). The second audit letter to PSI identified 35 locations that were not identified in the first audit letter, and the second audit letter to Mobex identified 76 stations that had not been identified in the first letter to Mobex. (Exs. P382, pp. 2-3; P384, pp. 2-3).

125. In response to the second audit letter, Mobex admitted that *an additional 13 of its stations had never been constructed*. (Ex. P383). Again, the consequence of this admission was that, under Commission rules, those licenses had canceled automatically and became invalid – without any FCC action – as of the second anniversary of each license grant date. (T3 61:13-23 **[Havens]**). All told, as a result of the two audit letters, Mobex admitted that 34 of its licenses (out of about 160 total), which it had been asserting as valid and as "heavy encumbrances" to the geographic licenses being auctioned, were actually invalid (T3 60:21 – 61:12 **[Havens]**), and should have been returned for cancellation long before the auction.

126. As to those stations for which Mobex and PSI had responded to the audit letters with a timely construction date (as opposed to those they admitted had not been constructed), the FCC did not cancel the licenses at that time. (T3 86:19 – 87:9 **[Havens]**). However, Plaintiffs

remained skeptical about whether the dates reported by Mobex and PSI were truthful and accurate, and noted that the Rules actually require that a timely notice be filed with documentation evidencing the construction of each station. (T3 87:11 – 88:21 **[Havens]**).

127. Havens had reason to be skeptical. Some of the stations which PSI and Mobex now admitted had not been constructed were the exact same stations they had recently filed renewal applications for, asserting under penalty of perjury that the stations were operating and providing AMTS service according to the parameters established in the licenses For example, on June 10, 2004 – between the time Mobex received the first audit letter dated May 26, 2004 (Ex. P378), and the time Mobex submitted its response to the FCC, dated June 23, 2004, in which Mobex admitted that 15 station locations within Call Sign KAE889 had *not been constructed* (and were therefore invalid under FCC Rules) (Ex. P379) – Mobex submitted a license renewal application for all of the locations in Call Sign KAE889, electronically signed by John Reardon under penalty of perjury, falsely declaring that those very stations which Mobex admitted just 18 days later were invalid, were valid and eligible for renewal. (T4 423 – 8:13 **[Havens]**; Ex. P346 at p. 111 (marked Plaintiff 0058043)), Moreover, in addition to those 15 stations under Call Sign KAE889 that Mobex admitted were not constricted -- i.e., invalid -- in response to the first audit letter, Mobex admitted *another* 13 stations within that call sign were not constructed in its October 13, 2004 response to the second FCC audit letter. (Ex. P383).

128. PSI engaged in the identical unlawful behavior. Robert Cooper admitted in his deposition that PSI sought renewal of licenses that had never been timely constructed. Mr. Cooper made excuses, said he was not aware of it at the time, tried to blame it on FCC counsel (even though the applications were signed by Susan Cooper), suggested perhaps that they were confused because of different locations under a single call sign, and ultimately asserted that PSI

did not do so willfully. (Cooper Depo., 251:4-19, 252:14 – 253:6). However, he admitted that PSI filed objectively false applications to renew licenses – assertions that the licenses were eligible for renewal – which PSI later admitted were invalid, having never been constructed. (*Id*.) The fact that Regionet/Mobex/MCLM were doing the same thing suggests more than mere accidents and coincidences.

129. Moreover, MCLM has admitted that none of its stations have been interconnected since 2007. (T6 85:10 – 86:18 **[S. DePriest]**; T8 22:5 – 23:5 **[Reardon]**; Ex. P225 at p.5, answer to FCC Interrogatory No. 10). As noted above, Mr. Reardon at trial that *as early as 2004-2005*, Mobex's customers were not interconnected and revenues were "de minimus", as noted in his letter to the Universal Service Administrative Company. (T8 44:1-14 **[Reardon]**; Ex. P375, page 3 of 4, first paragraph under heading "Item Three"). MCLM did not notify the FCC that it was discontinuing the interconnectivity of its service, as required by 47 C.F.R. §80.475(d) (*see* discussion of service requirements, Section III.A.2.(d), *supra*), nor did MCLM apply to the FCC for authorization to operate private mobile radio service which, as noted *supra*, does not require interconnection. MCLM's admission that it has not had interconnected service on any of its site-based licensed stations since 2007 is, thus, an admission that *all* its AMTS site-based licenses terminated automatically due to discontinuance of service.

130. The FCC continued to investigate the validity and timely construction of Defendants' licenses. In response to interrogatories served by the FCC, MCLM admitted that none of its stations are interconnected. (Ex. 225, ¶9 on p.4) As a result of the two audit letters in 2004 discussed above, 34 of Mobex's licenses were cancelled prior to MCLM acquisition of Mobex's site-based licenses. In series of joint stipulations with the FCC's Enforcement Bureau, MCLM canceled or deleted licenses for numerous other call signs and locations, and MCLM

proposed canceling others in exchange for approval that it might keep others. (Ex. 229, 497 and 464). All told, the site-based licenses MCLM proposes to keep are only 10% of its total, and MCLM will abandon the other 90%, although MCLM points out that some of those site-based licenses are in regions and spectrum blocks where MCLM is the geographic licensee (in which case MCLM still has the rights to that spectrum, albeit under its geographic license.) (T7 128:10-20 [**Reardon**]) Even taking that into account, many of those licenses are in Plaintiffs' geographic regions, and MCLM has admitted that a great number of licenses (which it previously held out as valid) were never timely constructed or continuously operated.

G. PSI Expressed No Concern over MCLM's Invocation of *Second Thursday*

131. The conspiracy has continued right up to the seeking by MCLM of application by the FCC of its doctrine known by the case appellation *Second Thursday* (*see Second Thursday Corp.*, 22 F.C.C.2d 515 (1970), *reconsideration granted in part*, 25 F.C.C.2d 112 (1970)) as the compelling purpose behind its bankruptcy petition filed in the Northern District of Mississippi, as Mr. Reardon admitted in his description of his calls to various prospective AMTS spectrum lessees with the "good news" of MCLM's bankruptcy filing. (T7 182:18-184:4 **[Reardon]**).

132. Again, PSI offered no protest over these extreme liberties taken with attempted invocation of this doctrine, even though a vigorous competitor would almost certainly have protested the attempted resort by its competitor to the *Second Thursday* doctrine to save itself and its unlawfully obtained and maintained licenses. PSI would benefit from invalidation of MCLM's licenses, making those regions available for acquisition by PSI in future auctions, and both PSI and Mobex/MCLM have long held themselves out as intending to expand and be the dominant players in AMTS. (T3 115:1 – 117:22 [**Havens**], Exs. P388, P389, and P102)

133. Under the *Second Thursday* doctrine, the FCC will under certain circumstances overlook defects in a license in order to assist in allowing bankruptcy creditors to be repaid. (T6 76:5-11 **[S. DePriest]**). This appeal for *Second Thursday* relief is of a piece with the other concerted conduct of PSI and Daniel/Regionet/Mobex/MCLM to maintain the ostensible validity of these terminated licenses for as long as possible, at all costs, by fair means or foul, over a period of 20-25 years.

134. The perpetuation of Mr. Reardon's role in the form of his position as a Managing Director of Choctaw -- the planned recipient of the remaining license assets under the present plan of reorganization for MCLM if the *Second Thursday* doctrine is applied -- is inexplicable unless Mr. Reardon was indispensable because of his knowledge and management of the conspiracy -- his "knowing too much" to get rid of. That is especially so given that a foundational requirement for application of the *Second Thursday* doctrine is that all of those associated with the questioned conduct that has given rise to the need for requested invocation of the doctrine be removed from the successor entity. *See, e.g.*, *In re MobileMedia Corp.*, 12 F.C.C.R. 11861 (1997). Mr. Reardon's testimony as to his role as a Managing Director of Choctaw and his lack of knowledge of his own duties and of any other persons in management of Choctaw was incredible on its face and further confirms the conclusion as to the reason for his selection for this managing director position. (T7 170:15 – 172:17 [**Reardon**]).

135. As the FCC Enforcement Bureau stated in its "Comments of the Enforcement Bureau on MCLM and Choctaw's *Second Thursday* Submission," dated May 9, 2013 and filed in FCC Docket No. 13-85 (P550):

> "Here, Choctaw seeks to acquire licenses with a value that far exceeds what is necessary to satisfy the innocent creditors, resulting in an estimated $12 million windfall to Choctaw. In other words, Choctaw would not need to sell all of the Licenses it now seeks to acquire in order

> to satisfy the innocent creditors. There is no precedent -- and MCLM and Choctaw's Submission offers none -- for expanding the narrow *Second Thursday* exception to allow transfers of licenses beyond those needed to repay innocent creditors." at 5.

136. FCC Chief Administrative Judge Sippel found in his decision issued on June 17, 2014 that MCLM's "stipulated cancellation of 73 of 89 site-based licenses amounts to the surrender of 82% of all site-based licenses that remain at issue in this proceeding." *Environmentel LLC*, 29 F.C.C.R. 2942 (2014)

137. He found such a wholesale surrender of licenses to be unacceptable in the absence of an indication of Bankruptcy Court approval as well as creditor approval and noted that "There is no indication that the Joint Stipulation was even filed and presented to the Bankruptcy Court." *Id*. Judge Sippel continues that absence evidence of such approvals, MCLM "will be expected to present evidence at hearing as to the construction and operational status of each of the 73 licenses, as well as those that were the subject of its May 31, 2012 Limited Joint Stipulation." *Id*. at 25-26, par. 72.

138. Judge Sippel is requiring MCLM's shell game with respect to its site-based licenses to come to an end either with the Bankruptcy Court and creditors confirming that these license "assets" are in fact non-existent and hence of no value or with MCLM proving its construction and operation of them such as to confirm their existence with proper records and other evidence. He is saying in effect that it is either deceptive to Bankruptcy Court process to claim now that these licenses have no value having initially valued them as assets of the bankrupt estate -- and so that they may be surrendered to the FCC for cancellation without impact on the bankrupt estate -- or deceptive to the FCC process to claim that they were valid, properly constructed within the required time limits and providing service and interconnection for actual customers but nonetheless will be surrendered. It is clear that MCLM cannot in fact make the

latter claim, for there is no credible reason why it would ever have agreed to surrender the licenses in the first place if it could offer that proof.

139. In fact, there can be no question that MCLM knew it was buying damaged goods when it entered into the Asset Purchase Agreement and closed on it. There is no other explanation for the low price of $6 million being negotiated -- down enormously from values for these licenses of at least $25 million just a few years earlier, as Mr. Reardon acknowledged. (T7 49:7-50:10 **[Reardon]**).

140. At trial, MCLM tried to portray Warren Havens as if he were doing something unusual and even antisocial by filing objections with the FCC that alerted it to PSI's and Mobex's wrongful warehousing of actually invalid licenses. However, what Mr. Havens was doing was what any business would be expected to do upon becoming aware that a competitor is competing unfairly by breaking the rules and encroach upon its property. In fact, it was PSI and Mobex/MCLM's failure to report each other's violations that is unusual and is further evidence of conspiracy between them.

141. It is evident that FCC does not have sufficient personnel to police all of its many licensees, including its AMTS licensees and their stations, to make sure they are all validly constructed and providing the continuous service that was required as a condition of the license grant. As such, the system is benefited by competitors who, like Mr. Havens, call to the FCC's attention when the rules for maintaining valid site-based licenses are flouted by unlawful warehousers of spectrum. The tenacity of Warren Havens in trying to bring to light the unlawful maintenance of ostensibly valid licenses has served a healthy economic purpose in preventing the Commission's Rules from being broken with impunity due to a pact between the two leading holders of site-based licenses.

H. Both PSI and MCLM Took Identical, Aggressive and Patently Invalid Positions in Refusing to Cooperate With Plaintiffs Regarding Non-Interference Issues

142. At the first geographic license auction (Auction 57), held on September 15, 2004, Plaintiffs obtained Block B geographic licenses in the North Atlantic, Mid-Atlantic, Southern Atlantic, Alaska and Mountain regions (Plaintiff AMTS Consortium, LLC, now named Environmentel LLC, was the winning bidder for those licenses), as well as the Mississippi River, Northern Pacific and Southern Pacific regions (Telesaurus VPC, LLC, now named Verde Systems LLC, was the winning bidder for those licenses). (Ex. P297, Attachment A).

143. Thereafter, in Auction 61, held on August 17, 2005, Plaintiffs obtained additional Block A geographic licenses for the Northern Atlantic, Southern Atlantic and Alaska regions (Plaintiff Intelligent Transportation Systems and Monitoring Wireless LLC was the winning bidder for those licenses), and for the Northern Pacific and Hawaii regions (Plaintiff EnvironmenTel LLC, was the winning bidder for those licenses). (Ex. 294, Attachment A). Both PSI and Mobex/MCLM owned assertedly valid site-based licenses in those geographic regions.

144. Plaintiffs entered discussions with potential business associates involving the use of the geographic spectrum it won. (T2 88:19-89:17, 90:1-91:24, 92:9-19, 93:16-25, 94:1-25, 95:1-13, 99:3-12 **[Havens]**).

145. However, in order to consummate the deals, Plaintiffs needed to be able to assure its potential customers that the spectrum they would be leasing or purchasing was free from being encumbered by non-interference rights of the incumbent site-based licenses of PSI and Mobex/MCLM. (*See*, *e.g.*, Ex. P240 (NJ Transit letter); T2 100:2-25; 101:1-25, 102:1-8, 103:10-25, 104:1-23 **[Havens]**). To do so, Plaintiffs needed information regarding the broadcast

contours of actual existing stations operated under those site-based licenses. (T2 95:16-25 and 96:1-12 **[Havens]**). However, both PSI and Mobex/MCLM refused to provide Plaintiffs with such information and, in so doing, prevented or severely delayed Plaintiffs from concluding business opportunities. (T2 88:19-118:15 **[Havens]**; Cooper Depo., 139:23-140:6, 141:20-142:15; T9 67:12-21 **[Reardon]**).

146. Such information, including not only the exact location and height of the transmitters and power at which they operated but also line loss and antenna gain and specific details about how those transmissions were propagated across local terrain and received by subscribers at various locations, was information known to PSI and Mobex/MCLM (*see e.g.*, Cooper Depo., 169:3-8, 260:9-16, 264:19-24, 269:21-270:10, 271:25-272:4), but could not be obtained by Plaintiffs without Defendants' cooperation. (T2 88:19-118:15 **[Havens]**).

147. Indeed, FCC Rules, *supra*, required site-based licensees to share such information with adjacent geographic licensees. (See, Ex. P554, n. 9 at p. 2).

148. When Plaintiffs challenged defendants' refusal to provide broadcast contour information as required by FCC Rules, PSI and Mobex/MCLM both identically took the unusual and completely untenable legal position that the geographic licensee, in this case Plaintiffs, had to first propose a specific, fully engineered system stating where they wanted to locate stations and what broadcast parameters they would be using at such hypothetical stations, and then the incumbent site-based licensee could respond whether or not that would interfere with its signal. (T9 67:12-21 **[Reardon]**).

149. This assertion makes absolutely no sense in real world terms, because the incumbent has every reason not to wish to have the geographic licensee interfere with its signal

and therefore every reason to want to furnish information to the geographic licensee to avoid such interference, absent a conspiracy. (T2 88:19-118:15 **[Havens]**).

150. As noted above, the site-based incumbent licensees' right to non-interference is like a hole in the swiss cheese of the surrounding geographic licensee. The size and shape of that hole is determined by the *actual operating broadcast contour* of the site-based licensee at the time the surrounding geographic license was issued, and it cannot be expanded beyond that contour. (Exs. P554 and P555; *see also*, *Northeast Utils. Serv. Co*., 24 F.C.C.R. 3310, 3311 n.12 (2009) (holding that "a site-based AMTS incumbent may not relocate its service beyond its existing contour" or undertake "any [other] modifications that impair the rights of the geographic licensee" (at 3314 n.42)), *aff'd. sub nom. Maritime Communications/Land Mobile, LLC*, 25 F.C.C.R. 3805 (2010)**;** *Dennis C. Brown*, 24 F.C.C.R. 4135, 4136 & n.9 (2009)). The real-world operating contour of the incumbent station *at the time of issuance of the surrounding geographic license* thus functions as the maximum metes and bounds, as it were, of the incumbent licensee's noninterference rights. In recognition of the public policy to allow geographic licensees to consolidate spectrum, these metes and bounds cannot be expanded, although they might contract or disappear altogether through the principle of "automatic reversion". (S*ee The Fifth Report and Order*, 17 F.C.C.R. 6685, 6704 ¶40 (2002); 47 C.F.R. §80.385(c))

151. By refusing to disclose to Plaintiffs information on antenna gain and line loss from which their actual, operating ERP (Effective Radiated Power) could be calculated, both PSI and MCLM have conspired to conceal the actual maximum geographic size of their respective "holes" in Plaintiffs' swiss cheese. They have prevented Plaintiffs from determining and enforcing the actual "metes and bounds" of those holes. In this way, they have jointly attempted to retain (nonexistent) right to expand those metes and bounds to their theoretical maximum

limits permitted on the face of their site-based licenses (many of which permit up to 1000 watts of ERP, but in the real world have never been operated at anything approaching that power), in contravention of the actual limits imposed by the FCC. The neat round circles in charts Defendants filed in the FCC are based on assumption of operating at the theoretical maximum limits, but the actual scope of their holes is much smaller (and in most, if not all cases, nonexistent, the entire site based license having reverted to Plaintiff due to invalidity and automatic termination) (See, T9 66:2 – 67:21, 69:6 – 71:10, 73:9-74:24 [**Reardon**]; Exs. 554 and 555) Both PSI and MCLM have done this although the FCC orders have all plainly indicated that such expansion of the size of the "holes" is not permitted.

152. The fact that both PSI and Mobex took these identical, untenable positions is one more instance of them cooperating to block Plaintiffs from making lawful use of their geographic licenses and covering up for as long as they possibly could the fact that many of their own site-based licenses had automatically terminated and thus no longer had any valid noninterference rights. They took those positions even though it was to their independent economic advantage to assure that the geographic licensee's signals did not overlap with theirs (if they had had operating stations), as required by the FCC by law and regulation.

V. DAMAGES

153. The Court finds that Plaintiffs have met their burden of establishing that they incurred injury of the sort the antitrust laws were designed to prevent as a proximate result of PSI and Mobex/MCLM's concerted action.

154. The evidence adduced, including as to NJ Transit as an example, shows that blocking is both possible and has occurred. (Ex. P240; T2 100:2-25; 101:1-25, 102:1-8, 103:10-25, 104:1-23 **[Havens]**). The fact of the need for these PTC systems, as documented by NJ

Transit (*id.*), Amtrak (Ex. P301, T2 92:9-19, 93:16-25, 94:1-25, 95:1-13, 99:3-12 **[Havens]**) and the MTA (Exs. P241 and D48, T2 108:15-25, 109:1-5, 15-25, 110:1-25, T5 50:5-7, 53:1-4, 13-25, 53:1-25 **[Havens]**) among others (*see, e.g.*, T2 89:1-17 **[Havens]**) combined with the essential AMTS spectrum needed to make them operable, provides a well-defined market in rail accident avoidance, as in roadway vehicular accident avoidance, that identifies both a product market and geographic markets for AMTS spectrum.

148. In any event, Plaintiffs have offered ample evidence of business lost to them as a result of this conspiracy and that those losses were the proximate result of the conspiracy. (T2 88:3-25, 89:1-23, 90:1-25, 91:7-24 **[Havens]**)

149. Losses have included the lost revenues from Plaintiffs' inability to build out the systems that would likely have allowed already the creation of a roadway accident-avoidance system nationwide that, while offered without charge, would have been linked to other, valuable revenue-producing services offered to system users by Plaintiffs.

150. Losses have also included impeding the ability of Plaintiffs to offer PTC to NJ Transit, Amtrak (until very recently with the PSI settlement), and the MTA, among other potential users and the revenues to Plaintiffs that would have resulted therefrom. (*Id.***)**

Respectfully submitted,

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